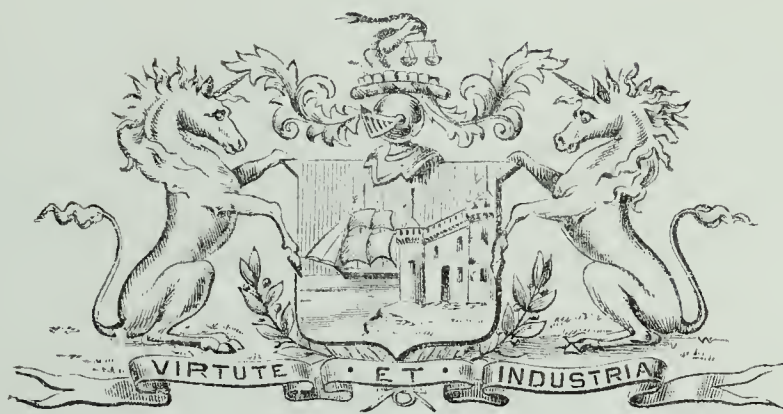


1893.



Bristol Port Sanitary District.

ANNUAL REPORT

OF THE

Medical Officers of Health

AND OF THE

CHIEF PORT INSPECTOR OF NUISANCES,

FOR THE YEAR 1893.

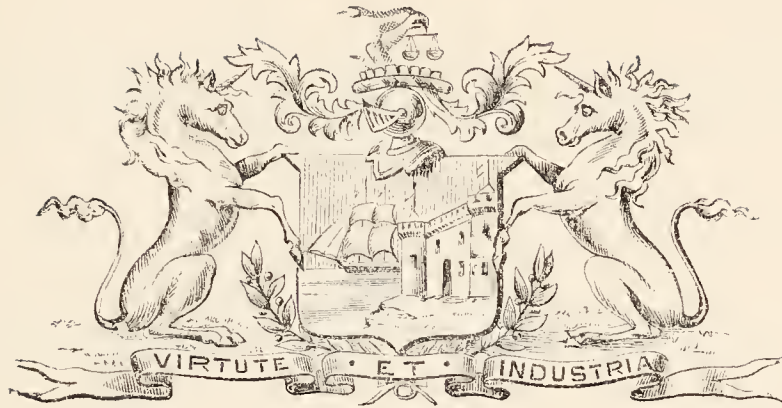
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BRISTOL PORT SANITARY DISTRICT.

Medical Officer of Health—

D. S. DAVIES, M.D. (LOND.), D.P.H., (CANTAB.)

Assistant Port Medical Officer of Health—

J. C. HEAVEN, L.R.C.P., M.R.C.S., D.P.H.

Assistant Medical Officers of Health (appointed under the provisions of the Cholera Order)—

DR. G. H. BARKER

„ W. BLACK,

„ C. W. J. BRASHER,

„ A. N. G. GIBBS,

„ H. HILL,

„ W. T. MADDISON,

DR. J. A. NORTON,

„ G. C. PAULI,

„ J. J. POWELL,

„ M. M. THOMAS,

„ W. A. VALENTINE

Chief Port Inspector of Nuisances—

S. O. DIMOND, *Cert. Insp. San. Inst.*

Port Sanitary Inspector at Avonmouth—

A. DICKENS.

*Avonmouth Hospital Caretaker and Assistant Inspector
and Boatman—*

J. REX.

Caretakers on Hospital Ship—

T. L. PRESS, C. EADE.

Master of S.S. “Luath”—

CAPT. JACKSON (*Holding Pilot's Certificate for Bristol Channel*).

BRISTOL PORT SANITARY DISTRICT

Report of the Medical Officers of Health and of the Chief Port Inspector of Nuisances for the Year 1893.

To THE CHAIRMAN AND MEMBERS OF THE
BRISTOL PORT SANITARY AUTHORITY,

March, 1894

GENTLEMEN,

The Port Sanitary District of Bristol remains a temporarily constituted District, the long-promised permanent constitution not having been yet established by the Local Government Board.

On January 17th, 18th and 19th, 1893, an enquiry was held at Gloucester, Bristol, and Bridgwater successively by Lord Courtenay, Mr. Longe, and Dr. T. W. Thompson, on behalf of the Local Government Board, with regard to the constitution of the Port Sanitary Authorities on the south side of the Bristol Channel. One of the chief points of the enquiry was as to the advisability of constituting the present Port Authorities of Gloucester, Bristol, and Bridgwater, permanent instead of temporary Authorities, or of combining the three into one Authority for the protection of the whole of the south coast of the channel. After the views of the representatives of the different Authorities had been put before the Inspectors, the result appears to be that the Authorities are to become permanent; the Gloucester Authority being extended in area, so as to include the water between the south shore and the mid-channel line down to the Severn Tunnel, where the district will join the Bristol Port District; the Bristol Port District to be extended to include the coast line of Walton Bay (Clevedon), as far down as Swallow Point, by Woodspring Bay; Weston and Bridgwater Authorities are apparently to retain their present area and administration.

The arrangement, by which Bristol has carried out Port work for Gloucester, is to be continued, but to be made permanent and legal, so that Bristol can charge Gloucester for work done. The various riparian Authorities included in the above extended Bristol Port District will contribute proportionally to the expenses incurred.

On February 23rd, 1893, at a meeting of representatives of these riparian Authorities, attended by the Port Subcommittee of the Bristol Authority, and presided over by Mr. Longe : it was agreed, after some discussion, that, provided Bristol would bear 80 per cent. of the expenses, the other riparian Authorities would contribute 20 per cent., without claiming representation. A permanent constitution of the Port Sanitary Authority is likely to be shortly established by the Local Government Board upon these lines.

The District comprises the anchorage of Kingroad together with the docks at Bristol, Avonmouth and Portishead ; the distance between extreme points being some twelve miles.

Cholera Precautions.

The history of the year's work is very largely concerned with the constant and detailed inspection of vessels arriving from infected or suspected ports.

The progress of Cholera westward from Asia during 1892, in two divergent routes, one northward through Russia to the Baltic, the other to the Black Sea littoral and the Mediterranean has been traced in the Report for that year, and the terrible epidemic of the Autumn in Hamburg, resulting, from its commencement on August 14th, to its subsidence towards the end of October, in 18,000 cases and 8,200 deaths, will not readily be forgotten.

The establishment of such a focus of infection within a short voyage of our shores, and on a coastline from which destructive epidemics have previously reached England, formed a source of considerable danger, and, in fact, thirty-six

cases of Cholera were in that year introduced into the English ports, without, however, obtaining any foothold.

Although the Hamburg epidemic, from its extent and virulence, appeared to have exhausted itself during the three months of its prevalence, there was yet danger that the many other infected continental ports might, during the spring, summer, and autumn of 1893, show serious recrudescence of the disease; and by universal consent every Port Sanitary Authority recognised the necessity for extreme vigilance and care in regard to arrivals from suspected ports during this period.

Cholera in Europe during 1893.

The first six months of the year showed some cases lingering in Hamburg and other German towns, Russia was still infected, cases being reported in Moscow, St. Petersburg, and especially in the Province of Podolia; in the South of France, Marseilles was attacked, and Lorient in the North-west; the Black Sea Ports also continued infected.

The second half of the year showed an extension of the disease in France, and it spread to Italy and Austria-Hungary; Mecca and Jeddah suffered very severely in June and July; the Russian epidemic continued in the infected provinces; Spain was infected; and several cases were imported into England, resulting in sporadic cases of the disease in distinct parts of the country, many of which apparently resulted from introduction into the North-eastern Ports.

Cases Introduced into England.

On Sunday, 25th July, the S.S. "Myrtle Branch," from Nantes, entered the river Tyne Port, reporting a fireman dead that afternoon of what was apparently an undoubted case of Asiatic Cholera.

On July 9th, the S.S. "Widdrington," arrived in Penarth Roads (Cardiff,) from S. Louis du Rhone *viâ* Malta, reporting two deaths from Cholera on board since leaving France on June 6th, all well on arrival.

On July 19th, the S.S. "Blue Jacket," arrived at Cardiff from Marseilles, having two cases on board, convalescent, which were removed for isolation to the Flat Holmes' Hospital, other patients had suffered slightly on the voyage.

On July 17th the S.S. "Altmore," arrived at Gravesend with a fireman convalescent from Cholera. The vessel left Marseilles on the 5th July, the man was taken ill on the 7th, and though convalescent on arrival, Cholera bacilli were demonstrated in his stools. He was kept under observation and thorough disinfection secured.

During the week ending August 5th, the S.S. "Bona" and "Violet" arrived at Gravesend, the former from Bussorah, the latter from Dantzic, reporting suspicious cases of disease on board. On the "Bona," a fireman had died in a day of what was apparently Cholera: the four cases in the "Violet" were not so distinctive.

On August 2nd, the schooner "Elizabeth McNeal," from Cherbourg, arrived at the Nore, on her way to Rochester, with a suspicious case on board, which was removed to Hospital, and recovered.

On August 2nd, also, the Danish steam trawler "Dania," from Antwerp, put into Grimsby with a man ill of Cholera, who died on board on the same day.

During August, Cholera appears to have broken the first line of defence, and to have become established in the North-eastern Ports. The first recognised case was the fatal case of a boy in Hull, on whom an inquest was held on August 25th, whose death was attributed by Dr. Klein, after bacteriological examination of the dejecta, to undoubted Asiatic Cholera.

As suspicious cases had also occurred in Grimsby, where Diarrhœa had been severely prevalent for several weeks, enquiries were instituted at that Port. Several cases occurring towards the end of August appeared to be cases of undoubted Asiatic Cholera. During the first two weeks

of September, suspicious cases continued to occur in both Hull and Grimsby. A death from Cholera occurred at Rotherham, traceable to Grimsby, on September 5th, and a second on September 10th. Cases began to appear at Cleethorpes early in September, and a death from Cholera occurred in Leicester on September 9th, stated to have probably come from Cleethorpes by means of oysters. Three cases occurred in London, apparently from Asiatic Cholera, during the month. Sporadic cases of Cholera or Choleraic Diarrhœa were also reported from Halifax, Ashbourne, Doncaster, Boston, Retford, Penge, Gainsborough, Islington, St. Mary-le-bone, and other towns. In many of these cases the disease appears to have been probably not Asiatic Cholera but Acute Diarrhœa (English Cholera), to which the prevalence of Cholera had directed special attention.

On 3rd September, the S.S. "Munificent," from Sulina, 17 days out, arrived at Portishead (Bristol) with a history of 4 fatal cases when at Sulina. All well on arrival. Careful disinfection was carried out.

On September 23rd the Hull record of fatal cases was 9, since August 24th; the total number of cases in the Grimsby Hospital, on September 20th, was 9; at Hurst, (Lancashire), and at Ashton-under-Lyne, a death was reported, in each case of a person returned from Cleethorpes, but no case had recently occurred at Cleethorpes itself.

On September 18th, a death occurred on the "Jeannie," on the Tyne, and two deaths occurred in Newcastle-on-Tyne, one on September 21st, the other on September 22nd; and a second death occurred about this time at Ashton-under-Lyne. Grimsby and Cleethorpes appeared free from Cholera at the end of September: the outbreak in Hull was also subsiding.

In October the number of reported cases rapidly decreased, but a recrudescence took place in Grimsby, after a free interval of 13 days, but with a prevalence of "Infective Diarrhœa" intervening. Fatal cases were

reported on October 14th, at Rotherham, Low Moor, North Bierley, Ormskirk, and South Shields.

In this month, also, a remarkable outbreak of Choleraic Diarrhœa occurred in the Greenwich Workhouse, almost entirely confined to the adult inmates. Some 252 cases and 11 deaths resulted, but the Asiatic character of the disease appears open to doubt; a polluted well was probably at fault. With the oncoming of the cold weather Cholera, and the fear of its further spread during 1893, disappeared from England.

CHOLERA PRECAUTIONS.

TABLE showing particulars of Ships from Infected and Suspected and other Ports Medically Inspected and visited in Kingroad, from June 19th to October 31st.

	Number Medically Inspected	Number Spoken.	No. of Persons on Board.		Number Medically Inspected	Number Spoken	No. of Persons on Board
Russia.				France.			
Taganrog ...	24	...	578	Charente ...	5	...	50
Archangel ...	23	...	343	Dunkirk ...	4	...	46
Uleaborg ...	1	...	13	Bayonne ...	1	...	13
Libau ...	2	...	30	Havre ...	3	...	33
Berdianski ...	1	...	21	Treport... ..	9	...	118
Yeisk ...	4	...	89	Rouen ...	12	...	138
Odessa ...	2	...	49	Bordeaux ...	2	...	31
Riga ...	6	...	108	Roscoff ...	5	...	49
Onega ...	2	..	41	Quimper ...	3	..	14
Poti ...	4	...	85	St. Malo ...	1	...	5
Tornea ...	1	...	22	Bordeaux ...	5	...	50
Novorossisk ...	3	...	63	Dieppe ...	1	...	6
Sevastopol ...	4	...	101	Nantes ...	2	...	10
Helsingfors ...	1	...	13	Finisterre ...	1	...	4
Marinpol ...	10	...	212				
Genitchi ...	2	..	41				
St. Petersburg	1	...	18	Roumania.			
Lowka ..	1	...	15	Sulina ...	9	...	216
Kemi ...	3	...	56	Ibrail ...	11	...	230
Keret ...	1	...	10	Toultcha ...	1	...	17
Nikolaiev ...	3	...	60				
Cronstadt ...	2	...	42	Holland.			
Kertch ...	2	...	45	Rotterdam ...	10	...	183
Eupatoria ...	1	...	22				
Germany.				Spain.			
Hamburg ...	22	...	391	Aquilas... ..	1	...	17
Memel ...	2	..	14	Rivadesella ...	1	...	4
Dantzic... ..	2	...	24	Huelva ...	2	1	50
Königsberg ...	1	...	6	Valencia ...	1	...	14
Stettin ...	1	..	11	Tarragona ...	1	...	17
Papenburg ...	1	...	5	Almeria ...	3	..	48
Belgium.				Gijon ...	1	...	5
Antwerp ...	16	...	273				
Ostend ...	1	...	12	North America			
Ghent ...	1	...	13	Savannah ...	...	2	21
Canada.				Mobile ...	...	1	12
Montreal ...	...	15	483	Pensacola ...	...	1	15
Quebec ...	...	2	31	Beaufort ...	..	1	25
Westbay ..	...	1	19	Astoria ...	...	1	25
Shediac ..	...	1	11	San Francisco ...	..	2	54
Campbelltown...	...	1	17	New Brunswick	...	1	16
Newfoundland	...	11	134	New York ..	..	20	594
				Wilmington ...	...	2	20
				Baltimore ...	...	4	92

Cholera Precautions—Continued.

	Number Medically Inspected	Number Spoken	No. of Persons on Board		Number Medically Inspected	Number Spoken	No. of Persons on Board
Asia Minor.				Norway.			
Smyrna ...	5	...	117	Kragero ...	...	2	19
				Porsgrund ...	...	1	10
Italy.				Fredrichstadt ...	...	1	12
				Fredrichshald ...	..	1	13
Genoa ...	1	...	7	Christiania ...	...	1	12
Greece.				South America			
Patras ...	2	...	43	Buenos Ayres ..	...	8	107
				Rosario...	..	3	37
Cyprus.				Valparaiso ...	...	1	16
				Chili ...	...	1	27
Larnaca ...	1	...	12	Talcahuano ...	...	2	30
Africa.				Portugal.			
Safi ...	1	...	17	Oporto ..	...	4	40
Alexandria ..	7	...	131	Other Ports.	4	...	68
Casa Blanca ...	...	...	30				
Jersey.	2	...	10	England.			
				Hull ...	...	3	44
Sweden.							
Helmstaät ...	...	1	5				
Skutskar ...	...	1	19				
Hernosand ...	...	1	16				
Sundsväl ...	2	...	31				
Geffle ...	...	4	58				
Soderham ..	...	1	15				
Other Ports ...	...	6	79	TOTALS ...	278	101	6788

TOTALS—Number of Vessels Medically Inspected ... 278

„ „ „ „ Visited ... 101

„ „ Persons Examined and dealt with ... 6788

PRECAUTIONS IN THE PORT OF BRISTOL.

In view of the continuance of Cholera on the continent through the winter months of 1892-93, and its wide diffusion in the later spring, the exercise of particular care in the inspection of all arrivals during the spring, summer, and autumn became urgent, the more so as the epidemic, in place of issuing from a chief centre of attack at Hamburg, was now liable to be introduced from many and distinct infected localities. The experience of the North Eastern Ports, detailed above, shows the reality of the danger to be guarded against, and the wisdom of anticipatory precautions.

INFECTED PORTS—

The following Ports were treated as infected during the year, and vessels therefrom were subjected to inspection under the Cholera Orders during the year—the list agrees with that in use in the Port of London.

March 3rd—Russian, Dutch, German, Belgian, French, Ports from Archangel to Brest, and also Black Sea Ports, Sea of Azov Ports and Marseilles.

On *April 1st*, the Local Government Board issued a circular calling attention to the prevalence of Cholera at Lorient.

On *June 28th*, all French Ports were added to the list.

On *August 16th*, all Italian Ports were added to the list.

On *September 20th*, Bilbao was added, but Brindisi, as to which there was no evidence of infection, was omitted from the list of infected Italian Ports.

Arrangements for Boarding and Medical Inspection in Kingroad.

In order to insure the inspection of all arrivals, whether by day or by night, your Committee purchased a suitable steam yacht, (the S.S. "Luath,") with the aid of which inspection was continuously carried on from the

beginning of May to the beginning of November. A Medical Officer was on duty on each tide, having his quarters on board the yacht. A large, sound, and substantial hulk, (the "Margarida,") was also purchased and fitted up as a Hospital Ship, providing 30 beds, including officers' quarters. She is now moored in a suitable and safe position at the river mouth.

The steam yacht has proved in every way a satisfactory and good sea-boat, fully justifying the discretion of Mr. Parkinson, of the Docks' Engineers' Staff, who kindly selected her. The engines bore the hard wear and continuous strain very satisfactorily, and no accident occurred in boarding vessels by day or by night.

In addition to her use in Cholera Inspection, she has also been most serviceable during the winter months in conveying convalescent smallpox patients from the city to the Avonmouth Port Hospital, and to the Hospital Ship: for which purpose a removable "omnibus" ambulance was fitted upon deck: this is easily unshipped when she is required for Port service.

The "Hospital Ship" has also been invaluable for male convalescent patients, sent here to relieve the great strain upon the city hospitals during the Small-Pox Epidemic. Over eighty convalescent patients have been thus accommodated, making excellent recoveries. It is difficult to know how otherwise the sudden pressure could have been so satisfactorily met.

On each tide during Cholera service the yacht was out with the Medical Officer on board, $4\frac{1}{2}$ hours before high water, continuing on duty until high water, when no more vessels could take the river. This long tide-service is necessitated by the existing arrangement with Gloucester to board and examine Gloucester-bound vessels: and as these frequently run up the Severn considerably to the northward of the channel, it is occasionally difficult to

catch them, and at the same time to intercept arrivals for the home river.

While no actual cases of Cholera were introduced into this port during the year 1893, several vessels arrived with a history of Cholera or Choleraic Diarrhoea on board, and thus required minute care in cleansing and disinfection.

In our arrangements for this year, it must be understood that any Gloucester-bound vessels needing inspection under the Cholera Orders, should be brought to by the pilot in charge, and a signal hoisted, as we cannot undertake to chase Gloucester boats across the channel at the risk of missing our own arrivals. That is to say our arrangement must be clearly held to be this, that we undertake to board and deal with any vessels waiting or giving us reasonable facilities for inspection, and will give them a clearance certificate; any vessels arriving at Gloucester without such certificate must be dealt with at that port by the Gloucester authority.

Vessels Inspected under the Cholera Orders.

Of the 278 vessels inspected under these orders 188 were bound to Bristol, and 90 to Gloucester, thus one-third of the work entailed is done on behalf of Gloucester. No addition to the staff has been made to meet this press of work.

A stated sum per vessel is paid to the Bristol Port Sanitary Authority, in view of the inspections made by their officers.

In a report made by your Committee's instruction, on 8th December, 1892, before the enquiry was held regarding the permanent constitution of the Port Sanitary District, the following suggestion was made: "It would appear
"equitable, should fresh arrangements of similar nature
"be made, that Gloucester Port should also share in such
"special expenses as are involved in the use of a steam-
"boat for inspection, and that the services of the Port
"Medical Officers and Inspectors in the execution of the
"Gloucester agreement should be duly recognised."

CHOLERA REGULATIONS—PORT OF BRISTOL.

The following Memorandum drawn up for the information of medical officers appointed under the Cholera order, represents the powers in force, and exercised, during the year :—

Under the General Cholera Order (28th August, 1890):

On arrival of any ship **infected with Cholera**, or suspected by Officers of Customs or by Medical Officer of Health to be infected with Cholera :—

1. **Customs Officer** detains ship.
2. **Medical Officer** inspects within twelve hours.
3. If ship is infected, **Medical Officer** certifies accordingly.

4. **Medical Officer** then examines every person on board, certifies any person suffering from Cholera or Choleraic Diarrhoea, and removes to Hospital if condition admits of removal. If not, detains them for treatment on board ship.

5. **Medical Officer** certifies any person suffering from disease which may prove to be Cholera, and detains them on board ship or in hospital for two days.

6. Any other persons not so certified shall not land unless they satisfy the Medical Officer as to their name, place of destination, and address at such place.

Medical Officer forwards all such names and addresses at once to Medical Officer of Health of the district in which the place of destination is situate.*

7. **Medical Officer** causes the master of ship to take all measures to prevent spread of infection ; to destroy by fire, as may be necessary, infected articles ; and to secure proper disinfection of the ship and of any suspected articles.

Penalty for Contravention or Obstruction, £50

* In the Order this communication is to be made through the Clerk of the Authority, in practice the Notice is more conveniently sent direct from the Medical Officer.

Under the Supplementary Order (6th September, 1892):—

(a) When a ship is not “infected with Cholera,” but HAS PASSENGERS ON BOARD WHO ARE IN A FILTHY OR OTHERWISE UNWHOLESOME CONDITION, or has COME FROM A PLACE INFECTED WITH CHOLERA.

1. **Medical Officer** certifies accordingly.
2. **Medical Officer** examines persons on board, obtains names and addresses, and forwards as before.

(b) When the **Medical Officer** has reason to believe that any ship is INFECTED WITH CHOLERA OR HAS COME FROM A PLACE INFECTED WITH CHOLERA.

1. He directs the bilge water to be pumped out before the ship enters any dock or basin.
2. He directs all casks or tanks on board containing WATER FOR THE USE OF PERSONS ON BOARD TO BE EMPTIED, AND THE CASKS OR TANKS TO BE CLEANSED.

Penalty for Contravention or Obstruction, £50

Rag Orders.

Rags from France were prohibited by the order of 11th July, 1892.

Rags from ports on the Black Sea and the Sea of Azov, and other ports of Turkey in Asia, were prohibited by the Order of 13th July, 1892.

Rags, dirty bedding, or disused or filthy clothing, whether belonging to emigrants or otherwise, from any foreign port in Europe, north of Dunkirk, other than ports of Norway, Sweden, or Denmark were prohibited by the Order of 11th August, 1892.

In each case rags, &c., were not to be delivered overside except for purpose of disinfection, and any rags delivered overside or landed in contravention of the Orders, were, unless forthwith exported, to be destroyed by the person having control of same to the satisfaction of the Port Medical Officer of Health. Penalty for contravention £50.

(An Order of 14th October, 1892, prohibiting rags, bedding, or disused or filthy clothing from Denmark, was revoked on 16th November, 1892.)

An Amending Order was issued on 14th December, 1892, in relation to rags from France, and from the Black Sea and Sea of Azov, prohibited under the Orders of 11th July and of 13th July respectively. This Amending Order permitted rags, &c., to be delivered overside for the purpose of disinfection, such disinfection to be carried out by steam heat within 72 hours, at the cost of the Consignee or person having control over the same, and to the satisfaction of the Medical Officer of Health, as testified by Certificate: or in default, to be destroyed.

A further Amending Order was issued on 21st January, 1893, by which **Rags** to which the previous Orders of 11th July, 13th July, 11th August, and 14th December, 1892, applied, were permitted to be delivered overside and landed, upon delivering to the Officers of Customs a Certificate by the Consignor of the rags, made before Her Majesty's Consul or Vice-Consul at the place where such Certificate is made and authenticated by him, that such rags had not been derived from any place in which Cholera had been prevalent. The regulations as to bedding and clothing are not altered by this Order.

By an Order dated 5th August, 1893, further explained by an Order of 13th September, 1893, rags packed in bales and imported as merchandise, *i.e.: Rags compressed by hydraulic force, transported as wholesale merchandise, in bales surrounded by iron bands, and with marks and numbers showing their origin, and accepted as such by the Commissioners of Her Majesty's Customs*, are exempted from detention and allowed to pass in, but dirty bedding or disused or filthy clothing, whether belonging to emigrants or otherwise, from the places named in the previous Orders, are to be dealt with as in the Order of 14th December, 1892; or if not disinfected within 48 hours, to be destroyed within

24 hours after the expiration of the same. This Order is still in force.

Port Medical Inspection as practised in England under the Cholera Orders is apt to be misunderstood, and consequently the importance of the introduction of cases into England, through this "first line of defence," may be over-rated as evidence of failure of the system.

Port Medical Inspection is not an improved form of "quarantine," but in place of "quarantine," (or detention of ships and crews, healthy or infected, for long periods), it substitutes a rational system, the essence of which is this:—

- 1.—By Medical Inspection of arrivals it will detect *actual* cases of Cholera, and secure Hospital Isolation of patients, and disinfection of their belongings.
- 2.—By the same Medical Inspection, cases apparently sickening will be isolated and watched.
- 3.—Cases not yet sickening, but *possibly* incubating the disease will remain undetected, and these are *notified forward* to the Sanitary Authority of the District whither they are bound. This Authority then becomes responsible for the watching and dealing with any case amongst such arrivals.

Shortly, Medical Inspection *deals with* actual and probable cases, but can only *notify forwards* possible cases. The occurrence of these cases is thus in no sense a breakdown of the English system, which involves preparation against Cholera not only in Port Districts, but also in every Inland Sanitary District in England.

Fortunately, the incubation period of Cholera is generally short, (a few days only), so that a long distance ship with no recent cases on board involves, as a rule, little danger.

Dr. THOMPSON, the Local Government Board Inspector, visited the Port upon two occasions, on June 6th, and again on August 16th.

He inspected the Steam Yacht, and the Hospital Ship, and made full enquiry into the general arrangements for carrying on the work of Port inspection.

Typhus Fever.

In January, 1893, as Typhus Fever had been reported to be very prevalent in New York, and as it appeared possible that the disease might be introduced into the Port by cattle men arriving thence, special instructions were issued to the Inspectors, and all arrivals were carefully watched. No case of the disease was, however, introduced.

We are, Gentlemen,

Your obedient servants,

D. S. DAVIES, M.D., D.P.H.,

Port Medical Officer of Health.

JOHN C. HEAVEN, L.R.C.P., D.P.H.,

Assistant Port Medical Officer of Health.

Report of the Chief Port Inspector.

For the Year 1893.

PORT SANITARY OFFICES,

BRISTOL, *February 1st, 1894.*

GENTLEMEN,

I beg to hand you particulars of the work done by the Port Sanitary Inspectors during the year in the inspection of the Sanitary condition of living spaces and nuisances on Ships, and for preventing the importation of Cholera and other infectious diseases by the crews and passengers of such vessels.

The course adopted from January to May was to visit every ship arriving from foreign, by boat, as it passed up the river at Avonmouth between the hours of 6 a.m. and 8 p.m.: and the night tides were attended by a watchman or your Chief Port Inspector, who boarded all such ships on arrival at Cumberland Basin, and also made enquiries as to the health of the crews of the coasting vessels. The ordinary work as to Sanitary condition was carried on during the day after the vessels were berthed in the docks.

On May 6th, the steam yacht "Luath" was put to work on the Avonmouth station, and from this time till October 31st, both day and night tides were worked in Kingroad or the channel, and all vessels from foreign, and as many coasters as possible, were visited before they entered the river, and careful enquiries were made as to the health of the crews; also all ships from infected or suspected ports were boarded, and the berths, bilges, fresh water tanks, barrels, and ballast tanks, were disinfected or dealt with as found necessary by the attending Medical Officer. The number of vessels treated in this manner was 239.

From this time to the end of the year the same arrangements, as carried out before May, were put in force in the river and Cumberland Basin, and in this work we were assisted by the Customs Officers with information when anything came under their notice.

In the ordinary work of Sanitary Inspection, 1211 vessels were inspected in the docks during the year, or 54 less than in the previous year; but as 293 vessels were dealt with in Kingroad, and their Sanitary condition ascertained, there was really an increase of 239 vessels attended to as compared with 1892, making a total of 1504, which is the largest number yet done in any previous year; and the total number of inspections, visits, and disinfections amounted to 2682, and exceeded those of the previous year by 516, and out of this total over 200 vessels were bound to Gloucester, which meant much extra work to the officers.

Owing to the prevalence of Cholera abroad, and the continual inspection by Port Sanitary Officers at the various ports, the forecastles and other living spaces on the majority of ships have had more attention paid by the ships' officers to regular cleaning and disinfection, hence only 213 insanitary ships were found, or $17\frac{1}{2}$ per cent. of those inspected, which is a considerable improvement on the results found in 1892, when 261 insanitary ships, or 21 per cent. of those inspected, were so found; there also were only 317 various defects in these vessels as compared with 449 found in 1892. This, therefore, points to a steady improvement in the habitable condition of the crew spaces.

The particulars of work done, and the results for the last 8 years are set out in Table *B*.

For the first time no case of non-ventilation was found, but 9 cases of insufficient lighting (an increase of 7 over the previous year) were noted and dealt with.

In respect of nuisance from leakages, a great improvement has to be recorded, as but 42 cases came under notice.

against 84 in the year previous. Much of this improvement is probably owing to so many of the smaller and older vessels being out of use, and to the fine season, also to the increased attention paid to the matters at the direction of Port Sanitary Authorities.

It is my duty to again call attention to the universal want of wood lining to all crew spaces built of iron, without which these places are a constant source of nuisance and danger to the health of the inmates, in damp, rough, and frosty weather, when the sides and tops of such places reek with water or are covered with a thick coat of ice, and everything in the place becomes saturated with moisture, especially when, through stress of weather, a fire cannot be lighted.

This state of things is seldom seen in the cabins or officers' berths, as they are mostly lined, and I do not think it too much to ask for the crew spaces to be treated in the same way.

It is difficult to deal with this matter as a nuisance in harbour, as the ship is not exposed to the same conditions, and on a fire being lighted the place is partly dried up and the evidence of nuisance removed, and I think the only practical way of dealing with the matter is for the Board of Trade to insist on all living spaces being fitted with wood lining (removable if necessary) when the ship is built, or when under survey.

In justice to owners it must be allowed that many have fitted up a narrow strip of wood over the sleeping bunks, which is all they are required to do by the Board of Trade regulations, but some have lined the berths entirely, in such ships the increase of comfort is great.

Defective or foul water-closets were found on 14 ships, but only one paint locker communicating directly with the living space was found.

In the inspection of drinking water vessels, and in dealing with bad and suspected water, much important work was

done, as the supplies were disinfected or emptied on 293 ships and the tanks or barrels cleansed, being an increase of 187 over the previous year.

It was necessary to give 222 notices, and of these 204, or 92 per cent., were complied with. This is the best result yet obtained.

All this work was carried out by the ordinary staff of inspectors, without extra assistance, but they were often compelled to remain on duty for many extra hours, and the superintendence in connection with the hospital ship also took up much time and added to the work of the department.

After an experience extending over 8 years, I think that before the proper condition of crew spaces can be secured, powers will have to be given to the authorities to require better accommodation in respect to space, separation of sleeping bunks, fittings, lining of iron surfaces, and the position of water-closets, paint lockers, and lamp-rooms; and I have seen some new ships belonging to foreign owners where considerable improvement has been made in this direction.

The steam-yacht "Luath" has been found to suit for boarding purposes admirably; and as she provided quarters for the doctor and crew on board, she was always ready for duty when required, and made 342 trips into the channel to board ships, from May 6th to October 30th; and also attended to requirements of supplies, etc., to the hospital ship whilst she was in Kingroad.

She was stopped but 6 days during this period for cleaning out the boiler, for survey, and some slight repairs to steam-cocks.

Since November 20th she has been employed for city purposes carrying convalescent small-pox patients to the hospital ship and to Avonmouth hospital, and supplies of water and goods required from the city, making 39 trips in November and December, or 386 trips in the year.

Before she goes on active boarding service in Kingroad again, it will be necessary to have a strong belting fitted around her to protect her sides from injury when boarding ships in rough weather, she will then be in a thoroughly serviceable condition.

I am, Gentlemen,

Your obedient servant,

S. DIMOND,

Chief Port Inspector.

The Avonmouth Port Hospital.

The following is the number of Patients admitted during the year.

			ADMITTED	RECOVERED	DIED
Fever	...	...	1	1	...
Enteric Fever	...		1	1	...
<i>City Cases</i>	{ Scarlet Fever		18	16	2
	{ Small-Pox (Mar. to June)		8	8	...
	{ Small-Pox (Nov. to Dec.)		16	16	...
	{ (<i>Convalescents</i>)		—	—	—
			44	42	2

Ship Hospital.

		ADMITTED	RECOVERED	DIED
<i>City Cases</i>	{ Small-Pox (<i>Convalescents</i>)	24	24	...

Port Sanitary.

TABLE A.

SHIP INSPECTION AT BRISTOL, AVONMOUTH,
Showing particulars of such Inspection,

1893	Number of Ships Inspected.		Nationality.		Sanitary Condition.		Ventilation and Lighting of Living Spaces.			Foul and defective w.c.'s.
							Light. Vent.			
March Qr.	Steam	90	British	307	In good order	260	With	320	316	} 5
	Sailing	230	Foreign	13	Not satisfactory	60	Without	0	4	
June Qr.	Steam	96	British	332	In good order	291	With	360	356	} 2
	Sailing	264	Foreign	28	Not satisfactory	69	Without	0	4	
Sept. Qr.	Steam	103	British	252	In good order	227	With	276	275	} 4
	Sailing	173	Foreign	24	Not satisfactory	49	Without	0	1	
Dec. Qr.	Steam	92	British	241	In good order	220	With	255	255	} 3
	Sailing	163	Foreign	14	Not satisfactory	35	Without	0	0	
	Steam	381	British	1132	Good ...	998	Lighted & ventilated Not light- ed & ven- tilated.	1211	1202	
	Sailing	830	Foreign	79	Bad ...	213		0	9	
Totals for Year.		1211		1211		1211		1211	1211	14

Number of Ships Inspected in detail at Bristol,
Number of Ships Visited in Kingroad and River
Number of Ships Disinfected at Kingroad and
Number of Ships supplied with Water in
Revisits to Ships in Harbour, to see that Notices

Total Number of

In addition to the above work, the Mate of the "Luath" attended all night to December 31st, to speak all vessels arriving by night.

TABLE A.

PORTISHEAD, AND KINGROAD, FOR THE YEAR 1893.

the Action taken, and Results.

Leakage into Living Spaces.	W.C's & Paint Lockers communicating with Living Spaces	Iron Plates & Decks over bunks not lined	Bad and doubtful water and defective vessels for same.	Number of Persons comprising Crew.	Description of Defects.	Number of Defects.	Number of Notices given in respect of same.	Notices complied with.	
23	0	5	11	2235	Total number of defects found in respect of lighting, leakages, ventilation, cleaning, repairs and insanitary conditions, other than water supply.	128	70	Known to be complied with }	
8	1	1	69	3092	Ditto	85	72	Ditto	ditto
3	0	0	143	3151	Ditto	57	45	Ditto	ditto
8	0	1	70	3204	Ditto	47	35	Ditto	ditto
								Total	
								Now in force ...	
42	1	7	293	11682		317	222		

Avonmouth, and Portishead Docks ... 1211
to ascertain if any Sickness existed ... 1041
in River... .. 293
Kingroad 67
were complied with 250

Inspections, Visits, and Disinfections ... 2862

tides at Cumberland Basin, from January 1st to May 1st, and from November 1st

S. DIMOND,

Chief Port Inspector of Nuisances.

Port Sanitary.
TABLE B.
SHOWING PROGRESSIVE WORK OF SHIP INSPECTION SINCE INSTITUTED.

Year.	Number of Ships Inspected	CONDITION.			NOTICES.		Percentage of work known to be done.
		Good.	Unsatisfactory.	Percentage having Defects	Served.	Complied with.	
1885 (4 months)	191	109	82	43 per cent.	82	34	41 per cent.
1886	722	577	145	20 per cent.	186	85	45 per cent.
1887	1461	1073	388	26 per cent.	388	270	69 per cent.
1888	1371	1072	299	22 per cent.	313	206	66 per cent.
1889	1339	995	344	25 per cent.	391	303	77 per cent.
1890	1224	874	350	28 per cent.	386	314	81 per cent.
1891	1322	950	372	28 per cent.	439	366	83 per cent.
1892	1265	1004	261	21 per cent.	317	289	91 per cent.
1893	1211	998	213	17½ per cent.	222	201	92 per cent.

The Vessels unaccounted for left the Port and have not been seen since, but there is reason to think the required work has been done in most cases. It is the custom of many ship owners to get repairs done at loading ports, and those so done cannot be added to our returns for want of definite information.

S. DIMOND.

Port Sanitary.

TABLE C.

Infectious Diseases on Ships during the year 1893.

1893	Name of Ship.	Where from.	Nature of Disease.	No of Cases	Died.	No. Recovered	REMARKS.
Jany. 5th	S.S. "Solve."	Hamburg.	{ Choleraic { Diarrhoea }	4	0	4	One man left in Hospital at Ymuiden, others convalescen on arrival, ship thoroughly disinfected, all water emptied and tanks disinfected.
May 1st	S.S. "W. Connal."	Bordeaux.	Enteric Fever	1	0	1	Removed to Port Sanitary Hospital. ship and clothing disinfected.
June 10th	Schr. "Njaden."	Königsberg.	"	1	1	0	Removed to General Hospital. All clothing and ship was disinfected.
Aug. 10th	Barq. "Laborome."	Wilmington.	Intermittent Fever.	1	0	1	All usual disinfection carried out, man sent to Hospital.
Sept. 3rd	S.S. "Munificent."	Sulina	Cholera	6	4	2	All well on arrival. The ship's berths, tanks, barrels, bilges, etc., thoroughly disinfected on arrival.
Sept. 24th	SS. "Falka."	Marimpol.	{ Choleraic { Diarrhoea }	2	0	2	Crew well on arrival. All necessary disinfection done.
Oct. 27th	"S.S. "Lundy."	Taganrog.	Cholera	1	0	1	All well on arrival. All precautions taken.
Nov. 20th	S.S. "Mascotte."	Middlesboro'	Small-Pox	1	0	1	Removed to Sanitary Authority's Hospital, and all disinfection was done; forward ports warned.
Nov. 21st	S.S. "Seaton."	St. Petersburg,	Enteric Fever	1	0	1	Removed to General Hospital. The berths and clothes were disinfected, water emptied and tanks cleansed.
Dec. 11th	Ship "Bravo."	Savannah.	"	1	0	1	Do. do. do.

Continued over page.

TABLE C—Continued.

Other Diseases.

1893	Name of Ship.	Where from.	Nature of Disease.	No. of Cases.	Died.	No. Recovered.	REMARKS.
May 12th	Sp. "Northumbria."	Calcutta	Dysentery	1	0	1	
May 27th	Ship "Ganges."	River Plate	Fever & Ague	1	0	1	Went to hospital in Bristol.
July 3rd	S.S. "Skeffington."	Archangel.	Diarrhoea	1	0	1	Convalescent. Ship was disinfected and water emptied.
" 12th	S.S. "City of Exeter."	New York	Malaria	1	0	1	Convalescent on arrival.
" 19th	S.S. "Dominion."	Montreal	Diarrhoea	1	0	1	Ordinary case. Well on arrival.
" 21st	S.S. "Thornaby."	Ibrail.	Fever.	1	0	1	Admitted to Port Hospital for observation. Usual disinfection carried out.
" 28th	S.S. "Bala."	do.	Diarrhoea	2	0	2	Ship's tanks, bilges, and water disinfected.
Aug. 2nd	S.S. "Rimfaxe."	do.	Fever & Ague	1	0	0	Landed at Gibraltar. No information as to result of sickness.
" 28th	S.S. "Amoor."	Savannah	Fever.	2	0	2	One removed to Port Hospital. The ship and clothing was disinfected.
Sept. 5th	S.S. "March."	Sulina	Diarrhoea	4	0	4	Convalescent on arrival. All disinfection done
" 22nd	S.S. "Kilmore."	do.	Diarrhoea	1	0	0	Left in hospital at Norfolk (Virginia). No information as to result.
" 23rd	S.S. "J. M. Smith."	Ibrail.	Diarrhoea	2	0	2	Convalescent on arrival. Usual disinfection carried out.
" 23rd	S.S. "J. M. Smith."	Marinopol.	Sickness.	1	0	1	Sick at Kertch; convalescent on arrival. Disinfection carried out.
Oct. 3rd	S.S. "Solon."	Viborg.	Sickness.	1	0	1	Sick at Kertch; convalescent on arrival. Disinfection carried out.
" 15th	S.S. "Georgia."	Rafso.	Diarrhoea	4	0	4	Convalescent on arrival. Disinfection carried out.
" 22nd	S.S. "Dewsland."	Taganrog	Diarrhoea	4	0	4	Do. do. do.
Dec. 11th	Ship "Bravo."	Savannah	Diarrhoea	4	0	4	Do. do. do.
" 15th	" "Zadne."	Libau.	Diarrhoea	2	0	2	One convalescent on arrival, the other was removed to the General Hospital.
" "	" Marie Fanny."	Rafso.	Influenza	1	0	1	Landed at Copenhagen. Treated on board ship.

Port Sanitary.

TABLE D.

Return of Cases of Sickness reported to have occurred during the voyage,
or found on arrival in Port.

1893.	Small Pox.	Enteric Fever.	Fever and Ague.	Influenza.	Cholera.	Choleraic Diarrhoea	Diarrhoea.	Veneral Disease.	Yellow Fever.	Rheumatism.	Heart Disease	Bronchitis	Lung Disease.	Colds.	Indigestion & Stomach Complaints.	Liver Disease.	Dementia.	Dysentery.	Erysipelas.	Hernia.	Accidents.	Lost Overboard.	
January ...	-	-	-	-	-	4	-	-	-	3	-	-	1	1	-	-	1	1	1	1	-	1	
February...	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
March ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	
April ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
May ...	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
June ...	-	1	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
July ...	-	-	3	-	-	-	4	-	-	1	-	-	-	1	-	-	2	-	-	-	-	1	
August ...	-	1	1	-	-	-	4	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	
September	-	-	-	-	6	2	3	1	-	-	1	-	-	-	2	1	-	-	-	-	-	1	
October ...	-	-	-	-	1	1	13	2	-	-	-	1	-	1	2	-	1	-	-	-	2	-	
November	1	1	3	-	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	
December	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
TOTALS ...	1	4	11	2	7	7	24	4	-	5	1	1	4	4	4	1	8	1	1	1	-	5	3

ANNUAL REPORT OF CANAL BOAT INSPECTION YEAR, 1893.

TO THE COMMITTEE OF THE

BRISTOL SANITARY AUTHORITY.

GENTLEMEN,

I beg to hand you a report, as required by Section 3 of the Canal Boats Acts and Regulations, of the work done during the year.

1.—The Port Inspector of Nuisances is the appointed Inspector of Canal Boats, and is paid in connection with his other duties.

2.—The number of boats inspected was 50, and a much larger number will be dealt with when the great demands made on my time, in carrying out the work of Ship Inspection, &c., at Kingroad, under the Cholera Orders, shall have abated.

In these Canal Boats 20 contraventions were found, and most of them have been remedied, or are now receiving attention.

As found in former years, but few women and children are seen on Canal Boats in this district, and in no case is it the regular custom.

Summary of General Condition.

A.—Registration.

The general condition of the boats examined was fairly satisfactory, but 8 cases of non-registration were found, in most cases this applied to new boats recently acquired or built by a new Company at Swindon, but who are now obtaining the necessary Certificates.

B.—Notification of Change of Masters

This Authority is not a Registration Authority.

C.—*Absence of Certificates.*

Eight cases were noted in respect of 6 boats, and were dealt with as stated above.

D.—*Marking.*

One case of indistinct marking and 8 without marking have been remedied or are now in progress.

E.—*Overcrowding.*

No case came under notice.

F.—*Separation of the Sexes.*

No contraventions were discovered.

G.—*Cleanliness and Ventilation.*

One cabin required painting, but all boats inspected were ventilated.

H.—*Removal of Bilge Water.*

Only two cases were seen, and these were remedied at once.

I.—*Infectious Disease Notification.*

No case was found or reported. Provision has been made if any should occur.

J.—*Refusal to Admit.*

No refusal was met with.

K.—*Water Vessels.*

All boats were found to be properly supplied.

I am, Gentlemen,

Yours obediently,

S. O. DIMOND,

Inspector of Canal Boats,

